

**Remarks:**

Reconsideration of the application in view of the above amendments and following remarks is requested. Claims 1-5, 10-28, and 35-40 are now in the case. Claims 10-14, have been amended. Claims 6-9 and 29-34 have been canceled. Claim 40 has been newly added.

Applicants assert that the present amendment adds no new matter. Claim 10 is drawn to an antibody or antibody fragment that reduces the pro-inflammatory activity of IL-20 in a disease selected from the group consisting of psoriasis; arthritis; psoriatic arthritis; rheumatoid arthritis; multiple sclerosis; and inflammatory bowel disease. Support is provided in the Specification as originally filed, specifically: IL-20 transgenic mice exhibit many characteristics observed in human psoriatic skin (see page 81, line 23 to page 80, line 2; see also Example 25, page 176, line 14 to page 177, line 11); IL-20 receptor mRNA is “markedly upregulated in human psoriatic skin compared to normal skin...” (see page 82, lines 3-5; see also Example 21, page 168, line 1 to page 170, line 16); and “IL-20 stimulates signal transduction in the human keratinocyte HaCaT cell line...” and “IL-1 $\beta$ , EGF and TNF- $\alpha$ , proteins known to be active in keratinocytes and to be involved with proliferative and pro-inflammatory signals in skin, enhance the response to IL-20.” (see page 82, lines 19-23). Moreover, psoriasis can be treated by administering agents that bind, block, inhibit, reduce, antagonize or neutralize IL-20, this includes IL-20 antibodies (see page 82, line 25 to page 83, line 4; page 84, lines 7-21; see also page 170, lines 7-16). Antibodies and antibody fragments of present invention are useful in the treatment of not only psoriasis, but other indications as disclosed in the Specification (see page 170, lines 7-16; see also page 171, lines 12-17). Psoriasis is often associated with arthritis and rheumatoid arthritis (see page 84, lines 1-6). Accordingly, IL-20 antibodies are useful for treating arthritis; psoriatic arthritis, and rheumatoid arthritis. Psoriasis, arthritis, rheumatoid arthritis, multiple sclerosis, and inflammatory bowel disease share common inflammatory mediators (see page 88, lines 7-12). Accordingly, IL-20 antibodies and antibody fragments are also useful for treating multiple sclerosis, and inflammatory bowel disease.

To simplify the issues under consideration, Applicants have amended Claim 11 to remove reference to “IL-22 (SEQ ID NO:6).”

Applicants have noticed a typographical error in Claim 12. Applicants have amended Claim 12 to correct this error so that the language "... wherein the or antibody fragment is..." properly reads "... wherein the antibody or antibody fragment is...".

Applicants reserve the right to prosecute claims to cancelled subject matter in one or more subsequent applications.

**A. CONCERNING PRIORITY**

The Examiner has alleged that Claims 29-34 are not sufficiently supported under 35 U.S.C. §112, 1<sup>st</sup> paragraph, to claim the benefit of the earlier filed Applications listed in Applicants' claim to priority. Applicants have cancelled Claims 29-34, rendering the Office's concern regarding priority moot. Consequently, Applicants request that this objection be properly withdrawn.

**B. OBJECTION TO THE SPECIFICATION**

The Office has objected to the Specification for improper use of the trademarks, TAQMAN® and AMPERASE®. Applicants have amended the paragraphs beginning on page 144, line 13; beginning on page 154, line 17; beginning at page 157, line 7; beginning at page 169, line 3; and beginning at page 171, line 18, to properly use the trademarks, TAQMAN® and AMPERASE®. Consequently, Applicants request that this objection be properly withdrawn.

**C. REJECTIONS ADDRESSED FROM DECEMBER 11, 2006, OFFICE ACTION**

**(1) REJECTIONS UNDER 35 U.S.C. §112, SECOND PARAGRAPH**

**a.** The Examiner has rejected Claims 7-9 and 30, under 35 U.S.C. §112, second paragraph as indefinite.

Applicants have cancelled Claims 7-9 and 30. Accordingly the present rejection is moot as applied thereto. Applicants respectfully request that the present rejection be properly withdrawn.

**b.** The Examiner has rejected Claims 8, 9, 13, 14, 32 and 34 under 35 U.S.C. §112, second paragraph as being indefinite. The Examiner has alleged that the Claims are indefinite because they are drawn to "an antibody", but according to the Specification, the molecules are "immunoconjugates".

Applicants have cancelled Claims 8, 9, 32, and 34. Accordingly the present rejection is moot as applied thereto. Applicants respectfully request that the present rejection be properly withdrawn.

With regard to Claims 13 and 14, Applicants respectfully traverse. Under 35 U.S.C. §112, second paragraph, a claim must be sufficiently definite to point out and distinctly claim the subject matter that an applicant regards as his invention.

Applicants have amended Claims 13 and 14 (and the newly added Claim 40), to refer to a “conjugate”. The Specification teaches that an antibody of the present invention may be joined with a “conjugate”: see for example, Page 77, lines 25-27, (“Antibodies herein can also be directly or indirectly **conjugated** to drugs, toxins, radionuclides and the like, and these **conjugates** used for *in vivo* diagnostic or therapeutic applications.”) (emphasis added). The Claims are sufficiently clear so as to point out and distinctly claim the subject matter that the Applicants regard as the invention. Accordingly, Applicants respectfully request that the present rejection be properly withdrawn.

**c.** The Examiner has rejected Claim 11 under 35 U.S.C. §112, second paragraph as indefinite because it depends from itself.

Applicants have amended Claim 11 to properly depend from Claim 10. Applicants respectfully request that the present rejection be properly withdrawn.

**d.** The Examiner has rejected Claims 29 and 30 under 35 U.S.C. §112, second paragraph as being indefinite. The Examiner has alleged that the Claims are indefinite because they recite “the antibody reduces or neutralizes the activity of human IL-20”, however “the activity of human IL-20” is not defined in the specification.

Applicants assert that the activity of human IL-20 is indeed defined in the Specification; however, Applicants have cancelled Claims 29 and 30. Accordingly the present rejection is moot as applied thereto. Applicants respectfully request that the present rejection be properly withdrawn.

**(2) REJECTION UNDER 35 U.S.C. §112, FIRST PARAGRAPH REJECTIONS (ENABLEMENT)**

The Examiner has rejected Claims 29-34 under 35 U.S.C. §112, first paragraph as not enabling.

Applicants have cancelled Claims 29-34. Accordingly the present rejection is moot as applied thereto. Applicants respectfully request that the present rejection be properly withdrawn.

**(3) 35 U.S.C. §102(b)**

The Examiner has rejected Claims 6, 7, 10, 12, 29-31 and 33 under 35 U.S.C. §102(b) as anticipated by WO 99/27103 (Conklin *et.al.*) as evidenced by Bost *et al.* (*Immunol. Invest.* 17: 577-586, 1988) and Bendayan *et al.* (*J. Histochem. Cytochem.* 43:881-886, 1995). More specifically, the Examiner alleges that the antibodies of Conklin *et al.* would bind residues 42-102 of SEQ ID NO: 8 and/or reduce or neutralize human IL-20 as evidenced by Bost *et al.* and Bendayan *et al.*

Applicants have cancelled Claims 6, 7, 29-31, and 33. Accordingly, the present rejection of these Claims is moot. Applicants respectfully request that the rejection be properly withdrawn.

With regard to Claims 10 and 12, Applicants respectfully traverse. To anticipate a claim, a single reference must describe every element of the claim. Conklin *et al.* does not describe an antibody or antibody fragment that reduces the pro-inflammatory activity of IL-20 in the diseases to which the Claims are drawn: psoriasis; arthritis; psoriatic arthritis; rheumatoid arthritis; multiple sclerosis; and inflammatory bowel disease. Consequently, Conklin *et al.* does not describe every element of the present invention; and therefore, it does not anticipate the present invention. Applicants respectfully request that the present rejection be properly withdrawn.

**(4) 35 U.S.C. §103(a)**

The Examiner has rejected Claims 6-10, 12-14 and 29-34 under 35 U.S.C. §103(a) as unpatentable over Conklin *et al.* (WO 99/27103) in view of Xu *et al.* (WO 2003/083062), Koumenis *et al.* (*Int. J. Pharm.* 198(1): 83-95, 2000), Harlow *et al.* (*Antibodies*, Cold Spring Harbor Press, 1998) and Reff *et al.* (*Crit. Rev. Oncol. Hematol.* 40(1):25-35, 2001).

Applicants have cancelled Claims 6-9 and 29-34. Accordingly, the present rejection of these Claims is moot. Applicants respectfully request that the rejection be properly withdrawn.

With regard to Claims 10 and 12-14, Applicants respectfully traverse. To establish *prima facie* obviousness “the prior art reference (or references when combined) must teach or suggest *all* the claim limitations.” See MPEP 706.02(k); MPEP 2143; and MPEP 2143.03 *citing In re Royka*, 490 F.2d 981 (CCPA 1974)(emphasis added). The cited references, alone or in combination, do not teach or suggest an antibody or antibody fragment that reduces the pro-inflammatory activity of IL-20 in the diseases to which the Claims are drawn: psoriasis; arthritis; psoriatic arthritis; rheumatoid arthritis; multiple sclerosis; and inflammatory bowel disease. Consequently, the references, alone or in combination, do not teach or suggest *all* of the claim limitations of the present invention; therefore, the present invention is not obvious based on the cited references. Applicants respectfully request that the present rejection be properly withdrawn.

(5) *OBVIOUSNESS-TYPE DOUBLE PATENTING REJECTION*

The Examiner has provisionally rejected claims 6-10, 12-14 and 29-34 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6, 8, 10, 12, 14, 17-23, 25 and 26 of co-pending U.S. Patent Application No. 10/789,968 [Our ref. No. 97-72C3] in view of Xu *et al.*, Koumenis *et al.*, Harlow *et al.* and Reff *et al.*

The Examiner has provisionally rejected claims 6-9 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,119,175 [Our ref. No. 97-72D1] in view of Xu *et al.*, Koumenis *et al.*, Harlow *et al.* and Reff *et al.*

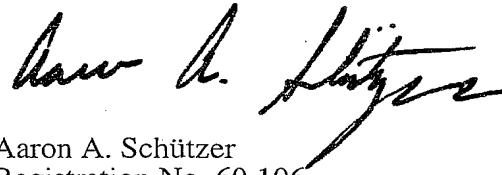
The Examiner has provisionally rejected claims 6-10, 12-14 and 29-34 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10-15, 22-24, and 39-53 of co-pending U.S. Patent Application No. 10/994,116 [Our ref. No. 03-21].

Upon an indication of otherwise allowable subject matter and in the event these rejections are maintained for the present Claims, Applicants will provide an appropriate response.

On the basis of the above amendments and remarks, Applicants believe that each rejection has been addressed and overcome. Reconsideration of the application and its allowance are requested. If for any reason the Examiner feels that a telephone conference would expedite prosecution of the application, the Examiner is invited to telephone the undersigned at (206) 434-3410.

It is believed that no fee other than the Fee for Extension of Time is due. However, in the event that another fee is due, please charge any fee or credit any overpayment to Deposit Account No. 26-0290.

Respectfully Submitted,



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Enclosures:

Petition and Fee for Extension of Time

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